GP-303485

MAGNETIC INERTIAL FORCE GENERATOR

ABSTRACT OF THE DISCLOSURE

A magnetic inertial force generator includes a magnetic shell internally defining an armature chamber. At least two circumferential electric coils are spaced longitudinally within the chamber and mounted on a cylindrical inner surface of the outer shell. An armature centered by springs is reciprocably supported in the chamber and includes at least two axially spaced radially magnetized permanent magnets mounted on a longitudinally extending magnetic steel tube. The magnets extend in general alignment with the coils. Controlled energizing of the coils reciprocates the armature axially relative to the shell to develop an opposite inertia force on the shell for application to a connected body. The use of multiple radially magnetized magnets provides for improved performance and/or reduced cost.